The Controversy Surrounding Net Neutrality

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A Brief Introcuction:

The topic of Net Neutrality is one that I came across via a social media campaign that encouraged users to contact their Congress people and voice their thoughts. I became aware of the principle very near to the time of its legal establishment, as described in the history portion of this document. It is important to note that my intention was to analyze Net Neutrality and understand its pro's and cons. I wanted to report on both sides, and offer my own input on the matter. Before I was able to write my own thoughts, the decision to uphold Net Neutrality was put into action, and I thought at that point, my opinion may have been irrelevant. However, laws are a product of the people who create them, and the people who create them are those that are inspired to make change. Although a decision has been made, it has been made by such inspired people, and it can be changed further by the same inspired people if necessary. The law is not unable to be changed, and that much is evident in the development of this topic. I consider my opinion, then, to be founded in both inspiration and a desire for change and growth.

Chapter 1: The History of the Internet

Net Neutrality, as it will be defined later in this document, is not a recent development. It is merely a recently developed term used to describe the level playing field for online content creators that the Internet has been for most of its existence. The Internet, as many of us have experienced it, has always been a vast and seemingly unlimited source of information. Since its conception, the Internet has evolved into a basic piece of our every day lives. It is a marketplace for sales of goods and services, a convenient placeholder for our photographs and memories, and an open field of expression in a society that otherwise might limit such expression. However, the Internet has not always existed in such a complex manner. In its most basic form, the Internet has always been a form of communication.

For the United States, the birth of the Internet was a backup plan during a time of extreme fear and paranoia. The Cold War left the people of America with the constant worry that at any moment, their lives could potentially be destroyed by nuclear attack from the Soviet Union. Students in school were being trained in the futile, although comforting, practice of hiding under their desks in the event of nuclear attack, and some people even built bomb shelters underground as an attempt to maintain one last safe place. An ongoing competition between the United States and the Soviet Union to show off which country was smarter and more powerful left people in constant fear. Scientists and inventors on both sides raced to create bigger, better, and more advanced forms of technology in order to help their own countries stay ahead, while average citizens lay in wait, hoping the enemy country would never push the symbolic red button that would launch their world into darkness.

Among the fears and worries created during this arms race of technology, was the Americans' fear of *Sputnik*, the Soviet Unions satellite, which was the first ever to be launched into space. Although *Sputnik* had little actual technological power, to the American people, it was a constant threat and reminder of the scientific capabilities the Soviet Union possessed. To the average American, *Sputnik* was likely a weapon aimed at the United States, just waiting to launch. The fear of annihilation was very real to citizens of the United States, and there was no sure way of avoiding it while the Soviet Union's satellite floated visibly through space above them.

The ever-growing concerns of the American people included an array of fears, with survival only a single concern at the top of the list. As the Soviet Union held onto first place in the technological arms race with *Sputnik*, scientists and defense specialists in the United States considered how they would communicate across the country if the telephone system were destroyed. They needed a form of backup communication, and it so happened that multiple inventors around the world were considering such a form of communication at the same time. For this reason, the Internet cannot be said to have any one single creator. The American contribution is credited chiefly to M.I.T. scientists, one of whom was named J.C.R. Licklider. Licklider's idea called for a network of computers that could talk to one another (USG).

The network created came to be known as ARPANet (Advanced Research Projects Agency Network), and its first test was held between a computer at UCLA and another at Stanford University. Scientists attempted to send the word "Login," from UCLA to Stanford, but the message crashed the network, and Stanford only received part of the message (History.com). ARPANet could then be considered one infantile stage of

what we know to be the Internet today. Before ARPANet could evolve into the Internet, however, it needed to be able to communicate with the other networks that had been created in different parts of the world.

An article published by the University System of Georgia states, "January 1, 1983 is the official birthday of the Internet." The same article explains that the ability of the networks around the world to communicate with each other was essential in the development of what we understand the Internet to be today (USG, 2). To make this communication happen, a protocol was developed that was designed to translate the language used by one network to another and thus allow for exchange of information between them. One protocol would evolve into several different protocols designed for exchanging different kinds of information; however the original concept was referred to as Transfer Control Protocol (TCP) or Internetwork Protocol (IP) (USG, 2). Our modern form of Internet still uses these protocols.

Even as the networks began communicating with each other, the organization of information on the growing Internet was severely lacking. The man often credited with the invention of the Internet is actually the inventor of its system of organization. In the early 1990s, Tim Berners Lee developed the most crucial elements of what the Internet is today ("History of the Internet"). Lee is credited with development of modern hypertext language, called HTML, as well as the transfer protocol known as Hypertext Transfer Protocol, or HTTP. These elements improved the organization of information for transfer between computers. Perhaps the most recognized development by Lee is the application known as the World Wide Web, which allowed for the information on the Internet to be organized and accessible by everyone who joined the network ("History"). While his

original application also served as a web browser that is no longer used, the organizational system known as the World Wide Web is still used in the highly developed modern Internet.

From this point forward, the Internet became a rapidly developing network for communication, economic enterprises, and information. The limits were only technological in nature, and as the technology advanced, so did our capability to use the Internet for more and more of our daily lives. It is that same advancing in technology however, that led to the controversy of Net Neutrality, when services such as Netflix and YouTube required so much extra bandwidth that Internet Service Providers began to feel they should be compensated for providing that technology to such companies.

The legal action behind Net Neutrality began in October of 2009, when the FCC began proceedings that would take into consideration whether or not the Internet should continue to remain open and free (Public Knowledge). However, since the Internet was not considered a form of telecommunication at this time, the FCC's authority to create rules for the Internet was called into question. In 2010, FCC Chairman Genachowski proposed, "reclassifying the transmission component of broadband service as a telecommunications service (Public Knowledge)." The proposition was met with much debate, and Net Neutrality continued to be a topic of controversial discussion until earlier this year."After a legal battle challenging the new classifications, the Supereme Court affirmed the Fcc's new classifications ins *National Cable & Telecommunications Association v. Brand X Internet Servcies*" (Brauer-Rieke). After taking comments from the public on whether or not to protect the Internet under Title II of the Federal

Communications Act, the FCC announced on February 26, 2015 that the Internet would

remain protected under Title II authority (Public Knowledge).

Chapter 2: The Principle of Net Neutrality, and Arguments in its Favor

As stated earlier, Net Neutrality is not a modern concept; it is a modern term. Up until recently, and not including the era of its conception, the Internet has been used openly by everyone who had access to it. No one type of content has taken priority over another type of content, and everything on the Internet has been equally accessible. This state of openness for the Internet is essentially the basis of what we know to be Net Neutrality. As long as it is enforced as a principle, it means that no one (particularly Internet Service Providers such as Comcast or Verizon) can have control over the speed at which any content is delivered to a given Internet user. There are several reasons such control could have a negative effect on Internet users.

Net Neutrality holds many benefits for online content creators and average Internet users alike. Its enforcement keeps a level playing field for all kinds of creators and users, and, as some see it, keeps large companies with lots of money from being able to control what information we as consumers can and cannot see. Without Net Neutrality, Internet Service Providers would allow companies to pay additional fees in order to put their content in an Internet fast lane. Supposedly, this would not mean that other content would be put in an opposing slow lane, however, Comcast has already proven this theory to be incorrect. Since Netflix requires a large amount of bandwidth to stream its content online, Comcast, in 2014, decided that Netflix would need to pay for that extra bandwidth. When Netflix refused, Comcast constricted Netflix's streaming speed to its customers, and since Comcast is one of the largest Internet Service Providers in America, that constriction affected a lot of customers, and Netflix was forced to pay Comcast's fees in order to keep its customers from going elsewhere for online video (Morran). What

this evidence suggests, is that if a company cannot or does not provide Comcast, or any other Internet Service Provider for that matter, with extra cash, their content can and will be slowed down. While it may be a conspiracy theory type of suggestion, boiling down all of the information brings about one general idea: Without Net Neutrality, our information will likely be censored.

YouTube content creator, Hank Green of the *VlogBrothers* defines Net Neutrality as, "the idea that Internet Service Providers should provide access to all of the Internet at the same speed, no matter what content it is. No one gets any preference." As one-half of the Internet duo known as the *VlogBrothers*, Hank Green is recognized globally for his intelligence. He and his brother, renowned author, John Green, are often consulted by Internet users for answers to political and scientific questions. As an online content creator and avid Internet user and enthusiast, Green is passionate about the concept of Net Neutrality, as it affects his career directly. In his video on YouTube titled, *Hank vs. Hank The Net Neutrality Debate in 3 Minutes*, Green plays the roles of both a common Internet user and a representative of a large cable company to help spell out the opposing arguments of Net Neutrality. The Internet user's argues that it is not the job of an Internet Service Provider to decide which websites are delivered at which speeds. He makes the point that the Internet is not meant to be a profit making tool for the middle man, it is meant to be, "a massive technological, and economic, and cultural force for good that everyone should have equal access to (Green)."

The *VlogBrothers* are just one example of online content creators who have made an effort to encourage Internet users to reach out to their members of Congress in an effort to keep Net Neutralit. Popular comedy website, College Humor put out its own

informational video on why Net Neutrality is important, titled *Why Net Neutrality Matters (And What You Can Do To Help)*. The video uses a nightclub-type setting as an analogy to explain how without Net Neutrality, Internet Service Providers would be like bouncers who would only let the richest websites into the club. In this scenario, entrance to the club equates to access to customers. College Humor argues that without Net Neutrality, smaller, less established content creators would be at a severe disadvantage, as their content would not be as accessible by Internet users as the wealthier, more established websites would be.

In her article for the June issue of *Delta Kappa Bulletin* titled, "Net Neutrality: What Is It, and Why Should Educators Care?" Director for the Center of Online Learning from the University of Illinois Springfield, Vickie S. Cook, PhD, writes about the crippling effect the loss of Net Neutrality could have on the world's education systems.

Cook begins with an explanation of what Net Neutrality is and a simple breakdown of how it directly affects consumers. The lack of Net Neutrality, as explained by Cook, implies that various companies that provide information online will be able to pay for and charge for higher quality and speed of delivery to the consumer, therefore widening what is known as the Digital Divide between people who have access to the Internet and people who do not. Cook's specific point of interest is how this problem could and likely would affect education if Net Neutrality were not restored.

Cook writes that the lack of Net Neutrality would affect both educators and students inside the classroom and out. She writes about Internet access and the potentially high priced websites for students at home and how it would make learning and accessing online educational content significantly more difficult, further increasing the Digital

Divide as well as defining economic class among students. Students from lower-middle-class and lower-class families would likely have significantly less access to online educational material necessary for school because they could not afford to pay the websites' fees.

In the classroom, educators would be faced with the possibility of paying fees for what was once free and easily accessible online content. Cook uses YouTube as an example when she writes, "[T]he impact of this ruling could mean that any time educators want to show a YouTube video in their classrooms, they may have to provide credit card information and pay an additional fee for that use" (48). Cook continues by specifying the massive effect a lack of Net Neutrality could have on colleges and universities for functions as simple as email communication. Essentially, any and all online activity used in an educational system would be put at risk of being less affordable and less accessible if Net Neutrality were not restored. Cook notes the possibility that student access fees could be raised even further than they already have in the past several years in an effort to pay for online access to educational web content.

Cook also explains the role of the Federal Communications Commission in trying to prevent the then passed ruling and what they were doing to reverse it when she writes, "Specifically, the court ruled that the FCC does not have authorization to oversee or provide rules regarding the open use of the Internet and called on the FCC to vacate its current Open Internet rules that had created the free-flowing exchange of ideas on a variety of provider networks" (47). Before the January ruling, Cook explains that the FCC enforced the free-flowing exchange policy, and they maintained that government regulation and or censorship of the Internet was not necessary. Since the ruling, Cook

explains, the FCC has fought to be in charge of which sites can pay and charge for higher speed and quality on an individual basis, thus providing a potential delay in the negative effect on the Open Internet and its users.

Chapter 3: Arguments Against Net Neutrality

While Net Neutrality has its fair share of benefits to the American people, there are a few needs it does not necessarily meet. Arguments against the principle of Net Neutrality come primarily from the major Internet Service Providers and cable companies who wish to be rid of it for their own financial gain, but they also come quite frequently from economists. The general argument is that Net Neutrality hinders technological progress.

In an interview for a YouTube channel called *ReasonTV*, Thomas Hazlett explains that he does not believe the government should be regulating the Internet. He says, "…[T]he government has no idea what the optimal business model is (Hazlett)." Hazlett is a professor of economics at George Mason University and the author of *The Fallacy of Net Neutrality*. He argues that, although many suggest that content creators will be put at risk without Net Neutrality, in his own experience, content creators are actually asking to be paid for access. He uses ESPN as an example, as their website requires that you prove you have a cable subscription before it will allow you to view their video content. In this scenario, ESPN is a provider of online content that believes the customer should pay to view it, and they should not have access to it for free. Hazlett also suggests that the "scare stories" involving Internet Service Providers throttling the speed of websites are really few and far between and, as such, not a valid argument. He suggests that Net Neutrality hinders the progress of business development because it decreases the possibility for competition.

Josh Steimle, an entrepreneur and a writer for *Forbes*, worries that to enforce Net Neutrality by legal means will require the government to monitor Internet traffic, and as

such, give them a casual way to spy on people even more than they have already been exposed to do. He writes of the possibility, "Don't be surprised if that means the government says it needs to be able to install its own hardware and software at critical points to monitor Internet traffic. Once installed, can we trust this government, or *any* government, to use that access in a benign manner? (Steimle)." Steimle is skeptical that the government will expect Internet Service Providers to police themselves.

Comcast's own Executive Vice President, David Cohen, is quoted by *Deadline Hollywood* as saying, "People who use more should pay more, and people who use less should pay less (Lieberman)." His argument is directed at the idea that not all customers should be paying for the same amount of access if not all of them will use that amount of access. Since Netflix takes up a large amount of bandwidth, a customer who does not use Netflix should not be paying for the necessary bandwidth to stream Netflix. Alternatively, consumers should be able to choose from tiered pricing, much like with cable subscriptions. Cohen also notes that he believes supporters of Net Neutrality do not understand the reality of the situation, and that they are afraid of restrictions that no one has claimed will occur (Lieberman).

Chapter 4: The Author's Thoughts

Net Neutrality is a subject I came across as a result of spending entirely too much time on the Internet. Perhaps it is because I am a millennial, but I have found myself, over the years, becoming more and more attached to the Internet and the creators who use it to make the world, in my opinion, a happier place. My love of the Internet is why I became a New Media Communications major. The creators I fell in love with are the inspiration for my career choice, and are, as such, highly influential to me. Those creators introduced the principle of Net Neutrality to me as a danger to what they do and what I want to do. As a result, I chose Net Neutrality as a topic of research with a great bias and little interest in what the other side could possibly have to say. I entered into this project as an advocate for Net Neutrality, and as I finish it, I believe that I still am, but with a more enlightened understanding of what is good and what could be less beneficial about the principle.

I believe that any topic one researches should be researched thoroughly before one speaks of it as though they really know something. One of my biggest pet peeves is a sentence stated in the form of a fact when it cannot be known to be a fact. I find that all too often people say things that they think they know based on something silly and highly unaccredited they read online, with no regards to whether or not it is true and whether or not they are allowing that source of information to make an absolute fool of them. I find it necessary to be specific in how much I know about a topic if I am going to engage in an intelligent conversation about it because I am aware of what I know, and I am aware of what I do not know. I do not claim to know anything that I do not know. As such, I have found it prudent to understand what arguments can be made against Net Neutrality

because I cannot not call myself fully educated on the topic, nor can I educate others on the topic, without understanding both sides.

Arguments against Net Neutrality, as I have found, do hold more validity than I may have originally been willing to give them credit for. Primarily from economists, these arguments commonly suggest that Net Neutrality hinders progress in both business and technological advances concerning the Internet and how it has the potential to be used. They also consider that since big Internet Service Providers like Comcast own the wires over which American Internet is transferred, they should have a right to charge smaller Internet Service Providers for their use of those wires. If I owned a business, and other businesses within the same industry were benefiting from my equipment, I would likely want compensation for their use of that equipment. I would not want the government to tell me I cannot charge those businesses to use my equipment.

However, if I were a leader of an industry that supplied a product that was necessary to maintain everyday life, I would not want to make it difficult for consumers to obtain my product. If I were the leader of that industry because my product was the best available, then I would not need to find ways to gain more and more money from those other businesses because more consumers would want my product anyway. Those businesses using my equipment would only be able to further increase the range of service that could be provided, which would be beneficial to more people. Maybe it is only a matter of ethics, but even a positive ethical reputation can be beneficial to my company and increase its potential revenue.

I admit that, as an aspiring online video creator, I am still in favor of Net Neutrality, and pleased that it is currently being upheld by law. Without Net Neutrality, I

understand that my desired career would likely be shot because I would not have the money to pay Internet Service Providers to put my content in the fast lane. I understand that the creators that I love would also be at a disadvantage, and their content might not be delivered to me at an adequate speed. I would then lose out on what I love the most about the Internet, and in part, what I love about life in general, which is creators. The Internet is an open field for self-expression, something I believe much of modern society strives to oppress. I would find the world significantly more bleak without this form of self-expression.

Even outside my desired career and my love of creative work, I understand that without Net Neutrality, I would not have the same access to knowledge that I do now. I would only see what Internet Service Providers allowed me to see for the money I paid. I would theoretically only get information from companies with a lot of money, and money has nothing to do with information, and therefore should not be a contributing factor.

In the fight to maintain Net Neutrality, the negative effects on the education system are likely some of the most important factors in any given argument because of the overall importance of education as opposed to entertainment or socialization. That said, the potential negative effects the lack of Net Neutrality would have caused seems to cover more aspects of our daily lives than just the education system. The Internet is used for almost everything in modern society. America already deals with a lack of competition between Internet providers, and that makes it easy for Internet providers to overcharge for low quality service. Unlike providers in some parts of Europe for example, that have multiple competitors, these American providers essentially have borderline monopolies on the market of Internet communication. What a lack of Net

Neutrality would have done is allow already prominent companies of all kinds to gain a borderline monopoly on their own product or service markets. The more successful a current company, the better quality and speed of delivery to the consumer they can pay for and therefore, the greater the disadvantage to smaller independent companies and start-up companies. Furthermore, a lack of Net Neutrality reduces online exposure to creative work, social media, and general online communication. If a producer cannot pay to be put in one of these Internet fast lanes, or a consumer cannot afford to pay for the content to be delivered, exposure of any kind would have become severely limited compared to what it is right now.

By reducing the accessibility to online content, taking away Net Neutrality has the potential to move the world away from the Internet and destroy everything it has become. The thought process behind taking away Net Neutrality likely involves the idea that we have become too reliant on the Internet to live without it, so we will pay for whatever we have to pay for to keep it. My thought is that consumers will only pay so much before the cost becomes too much, and someone somewhere will take advantage of a then failing Internet by creating a new form of Internet to which consumers will migrate. Granted, money will likely always be involved; the creator of this hypothetical new form of Internet would certainly reap monetary benefit. However, by creating something that costs less and offers more, this hypothetical inventor would still be taking the stress away from the consumers of the current Internet sans Net Neutrality. This may be exactly what lobbyists in favor of Net Neutrality are striving for in order to create technological advance, but personally, I believe that when it comes to the Internet, technological advances are something the world is not currently lacking.

Like Josh Steimle, I do not want the government to spy on my Internet activity, and in agreement with David Cohen, I do not want to pay for Internet access that I do not use (although, in my case, I use all of the noted applications, and would be paying for quite a bit). I see valid points in the argument that Net Neutrality could hinder technological growth. However, I also see the irony in the fact that the head of a cable company is suggesting only paying what we use, when the problem with cable is that we have no choice but to buy an entire package of channels even if we only watch one or two. The risks suggested by economists and others who are against Net Neutrality appear vague to me, and for that reason I still find myself in favor of it. That is not to suggest that the principle is perfect, and there certainly should be room for the consideration that Net Neutrality as a principle can be made better. David Cohen's idea of tiered pricing may be appropriate, but it will still have to be regulated in order to protect both content creators and consumers alike from being taken advantage of. I believe that compromises such as this are the key to finding a solution that will satisfy everyone's needs.

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